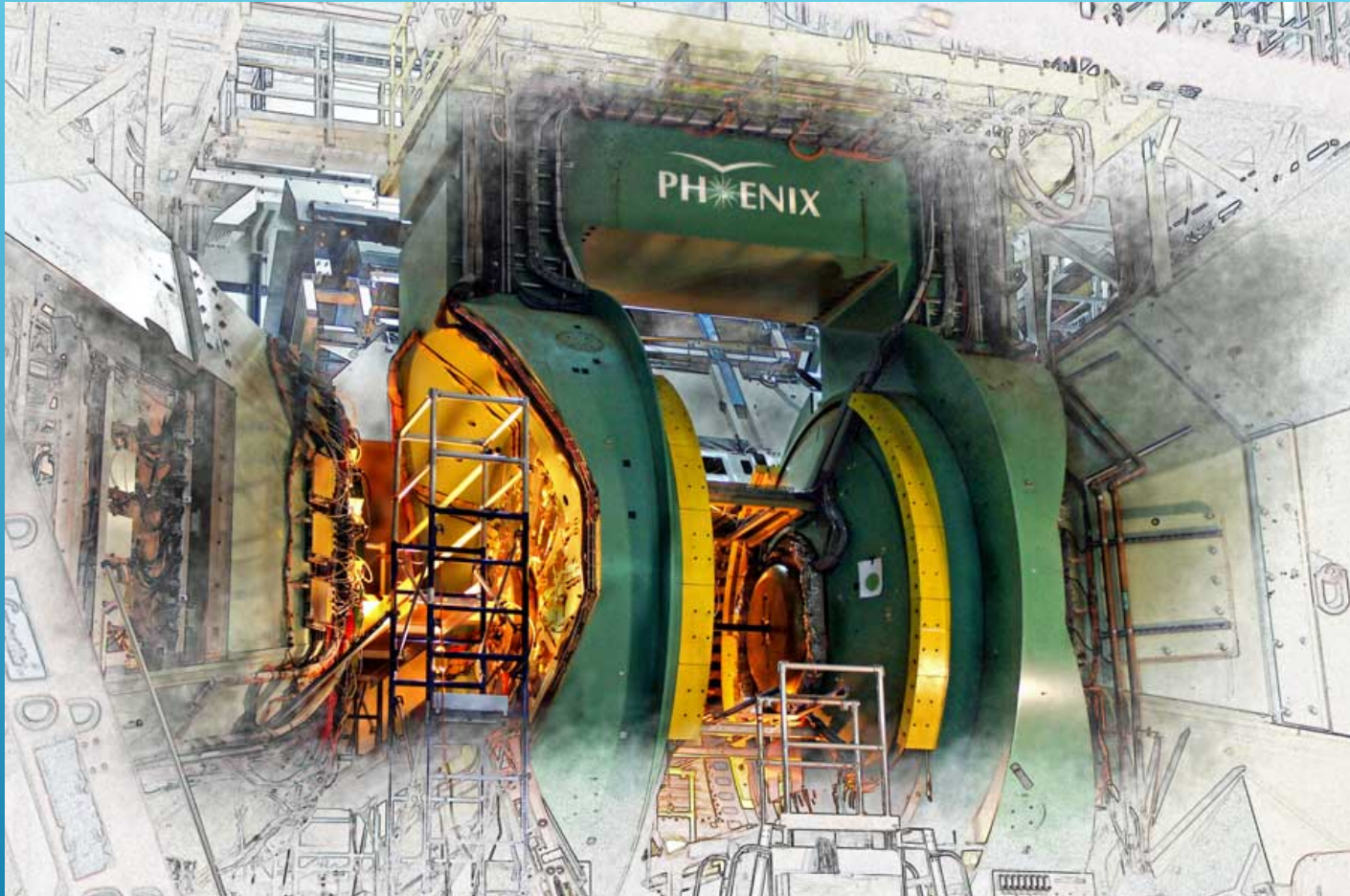


PHENIX WEEKLY PLANNING



July 16, 2015

C. Biggs

This Week

Remove MPC-Ex and MPC South

Start repairs on MPC-ex/MPC in 510

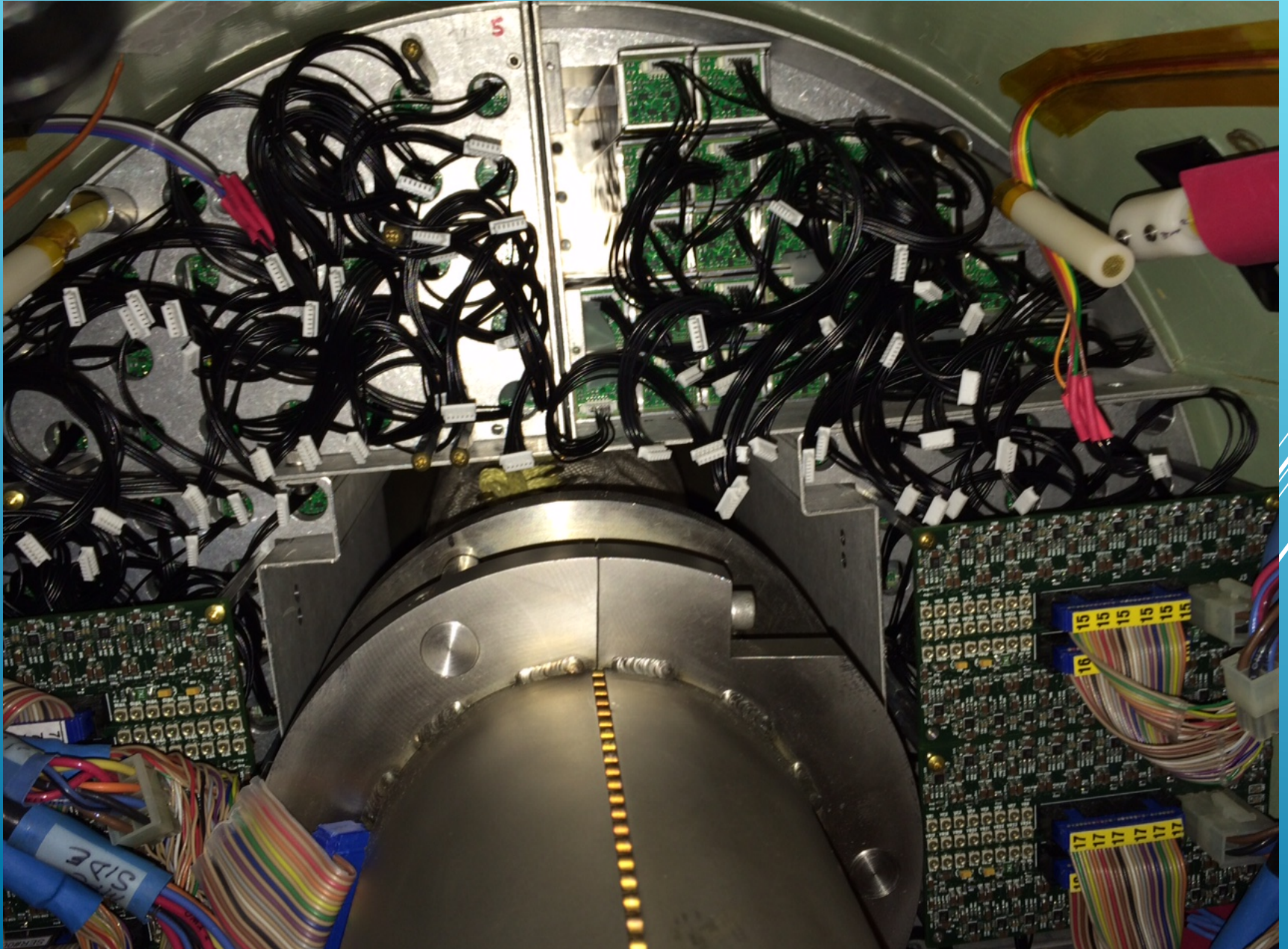
Start Repairs on VTX/FVTX East

Start De-cabling VTX/FVTX West

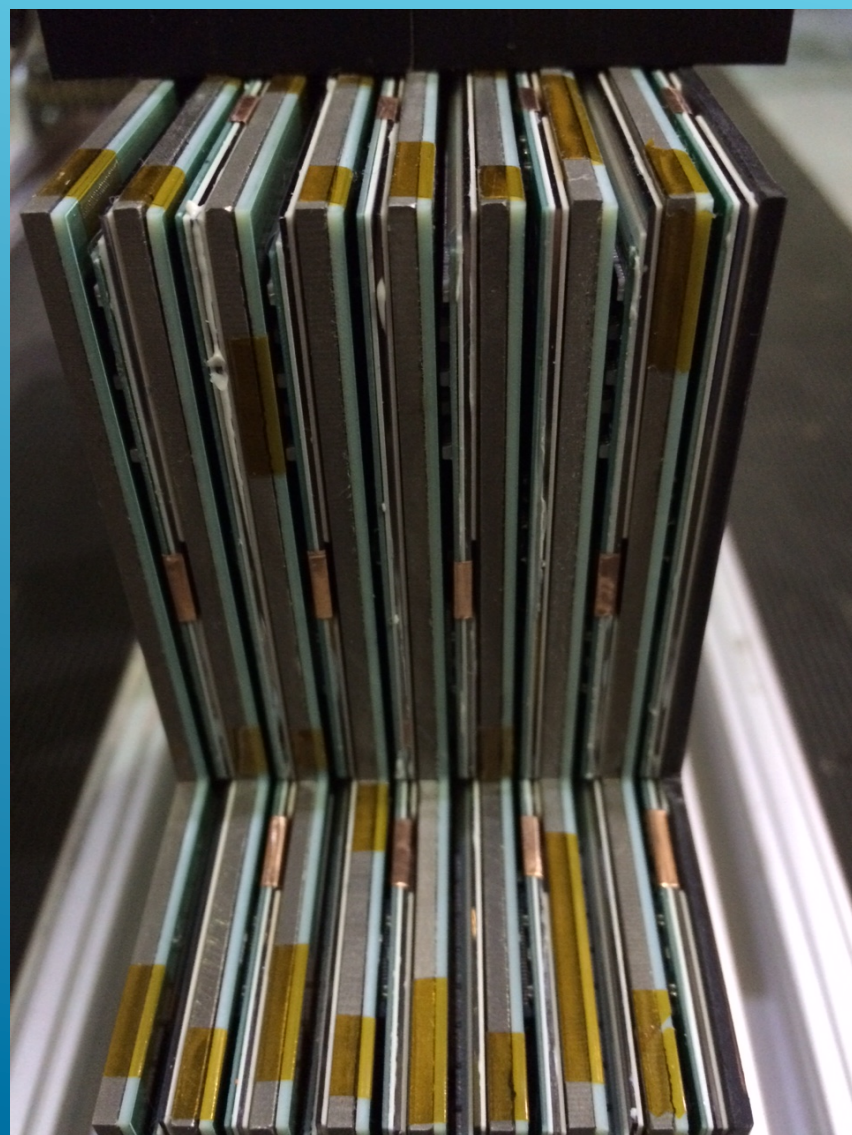
Next Week

Continue MPC & MPC-Ex repairs
Continue work on VTX/FVTX East
Remove VTX West to 510

MPC South



MPC-EX Air Restrictions



Fan Box Tests from November

CONDITION	FLOW RATE	PRESSURE
Through flow meter only	350 cfh (165 lpm)	9" W.C.
added manifold, no fittings	340 cfh (160 lpm)	9.4"
added fittings	325 cfh (153 lpm)	9.4"
added 4- 5/16" i.d. X 10 meter hoses	175 cfh (82.5 lpm)	10.1"
added aluminum flutes	140 cfh (66 lpm)	10.5"
added printed flutes (larger holes)	165 cfh (78 lpm)	10.5"
with alum. Flutes and one outlet plugged	125 cfh (59 lpm)	10.9"
with alum. Flutes and two outlets plugged	80 cfh (37.7 lpm)	10.9"
with alum. Flutes and three outlets plugged	40 cfh (18.8 lpm)	10.9"
W/ 3/4" i.d. x 10 meter hose only	275 cfh (187 lpm)	9.5"
added manifold w/ fittings	270 cfh (183 lpm)	9.9"
added 4- 3/16" i.d. hoses	250 cfh (170 lpm)	10"
added aluminum flutes	187 cfh (127 lpm)	10.5"
switched to printed flutes (larger holes)	230 cfh (156 lpm)	10.1"
AFTER "TWEAKING" FANS		
w/ 1- 3/4" i.d. x 10 meter tygon tube and manifold	340 cfh (160 lpm)	15"
added 4- 5/16" i.d. x 1 meter tubes	320 cfh	16"
added aluminum flutes	240 cfh	17"
switched to printed (larger holes) flutes	300 cfh	16"

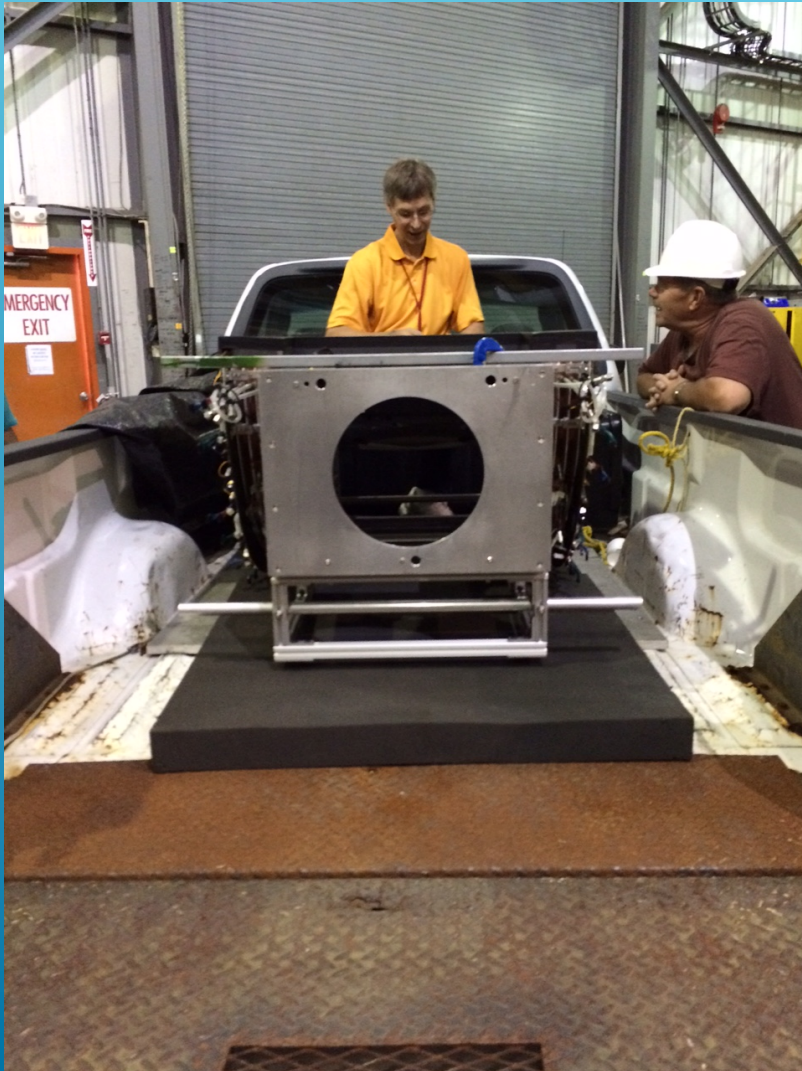
Conclusions:

1. The largest drop is from the hoses. There is no improving this
2. There was a 15-25% difference with the flutes with larger holes.
3. Using less channels per fan doesn't increase flow in the remaining hoses.
4. using one large supply hose to the manifold close to the detector with flutes with larger holes is the optimum set up if we stay with the fans.
5. Using dry air supply may be the better option. Our system will handle it.
6. After tweaking the fans, we achieved much better volume and pressure.

*Note: The flow meter most likely accounts for around 25 cfm drop.

VTX WORK

EAST



WEST



2015 SHUTDOWN SCHEDULE

June 19 th	End of Run Party
JUNE 22 ND	END OF RUN
June 23 rd	Roll out Shield Wall
June 25– 30	Remove Shield Wall
June 24 - 29	Pixel Testing on VTX (Chuck, Eric)
July 1	Remove Collars, Move South Magnet south
July 2 – July 6	Disconnect & roll out East Carriage
July 6 – 7	Setup up IR for shut down work
July 6 – 10	De-Cable & remove East VTX/FVTX, move to 510
July 9 th	Erect Scaffold between south and central magnets
July 10 th	Set up MPC-ex “sled”
July 13 – 16	Remove MPC-ex south, MPC South Crystals
July 14 – 21	De-Cable & remove West VTX/FVTX, move to 510
July 17 – Aug 7	Repairs and upgrades to MPC-ex and MPC south in 510
July 17 – Sept 21	Repairs to East VTX/FVTX in 510
July 17 - Oct 19	Repairs to VTX/FVTX West in 510
July 29 -31	Deliver and set up “Dance Floor” for Summer Sunday
Aug 2	SUMMER SUNDAY @ PHENIX

2015 SHUTDOWN SCHEDULE

(cont.)

Aug 3 – 26

Aug 10 – 21

Aug. 24 – 25

Aug 24 – 26

Aug 27th

Aug 28th

Aug. 28 – Sept. 4

Aug 31 – Sept 2

Sept 3 – 24

Sept 22 -25

Sept 24 – Oct 8

Sept 28 – Nov 20

Oct 20 – 23

November

Dec 1 – 4

Dec 7- 9

Dec 10 – 15

Dec 16

Dec 10 – 23

DC East and West Repairs

Replace & Troubleshoot MPC and MPC-ex South

MuTr South Sta. 1 Repairs

Remove South scaffold and move CM south

Erect Scaffold between CM and North magnet

Install MPC-ex “sled” in north

MuTr North Sta. 1 Repairs

Remove MPC-ex North & MPC North crystals

Repairs to MPC-ex & MPC North in 510

Re-install and re-cable VTX/FVTX West

Replace & Troubleshoot MPC and MPC-ex North

Troubleshoot VTX/FVTX Systems

Re-Install and re-cable VTX/FVTX East

DC Wire Repairs

Prep IR for Run 16

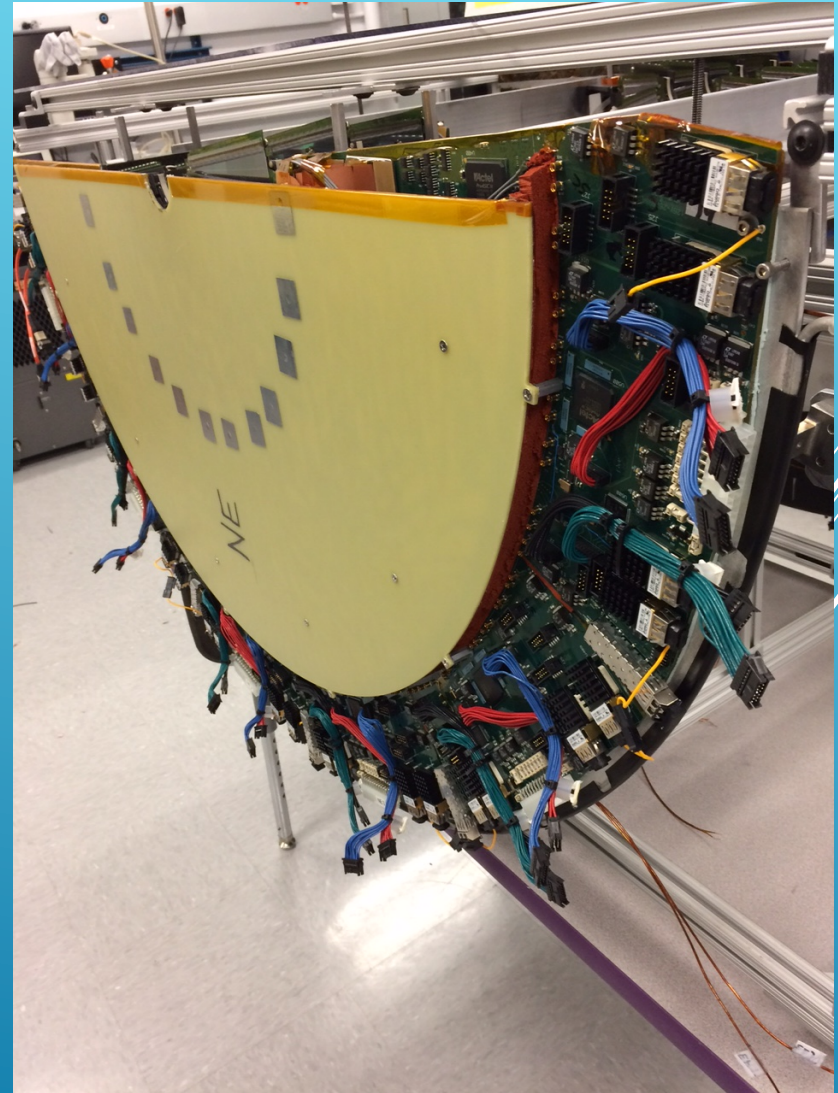
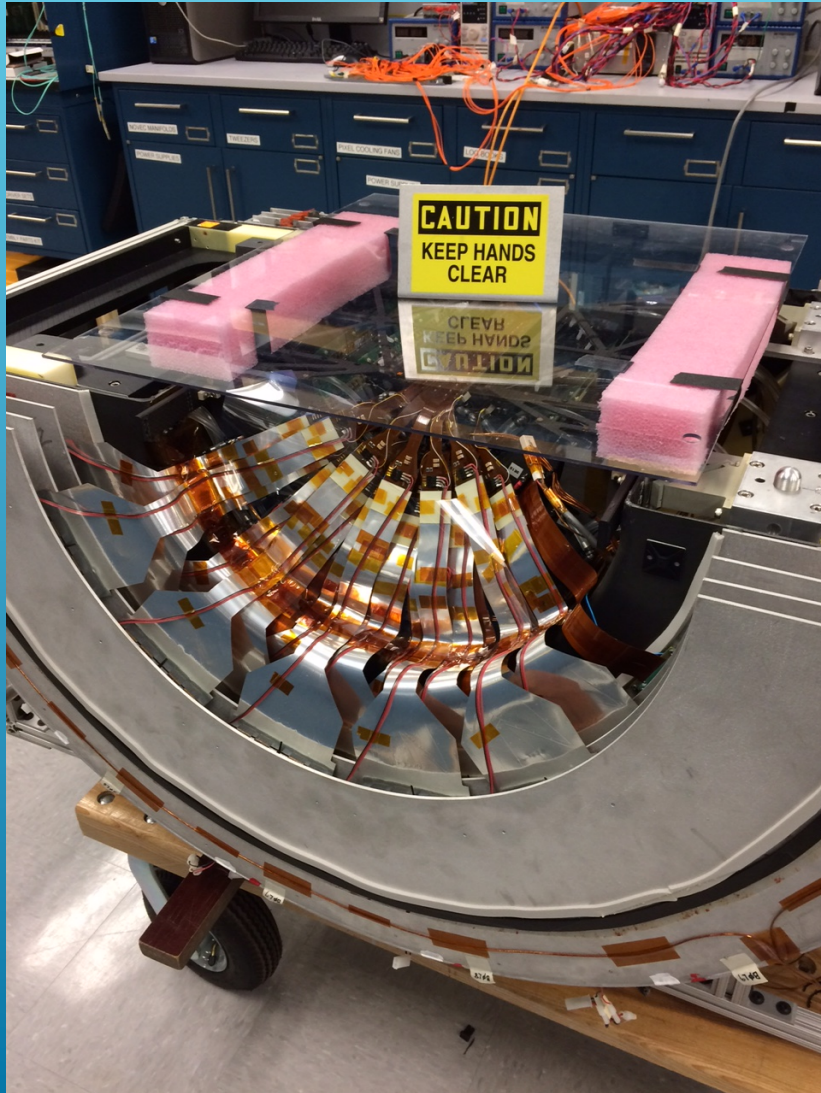
Move in East Carriage

Build Shield Wall

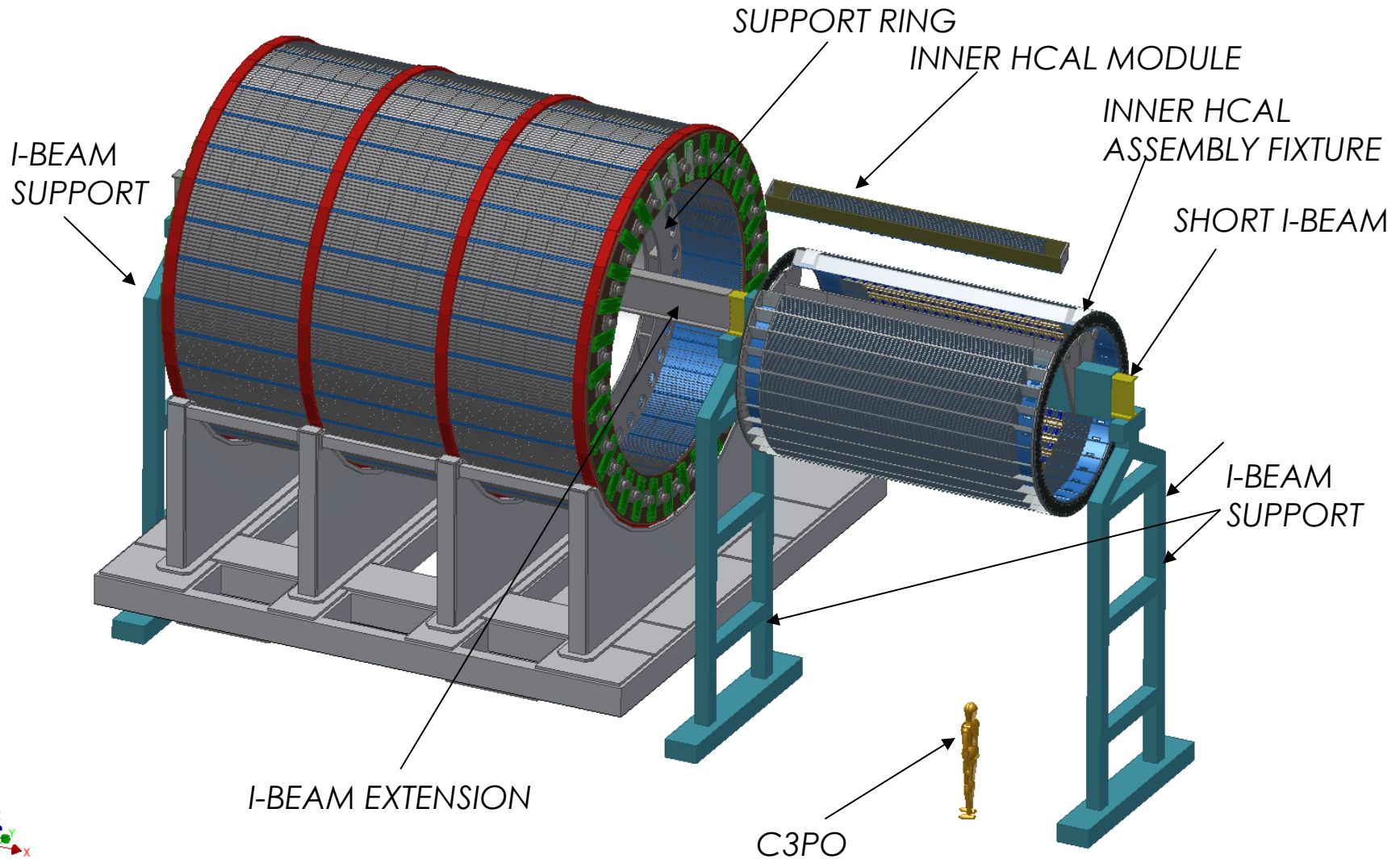
Move Shield Wall in

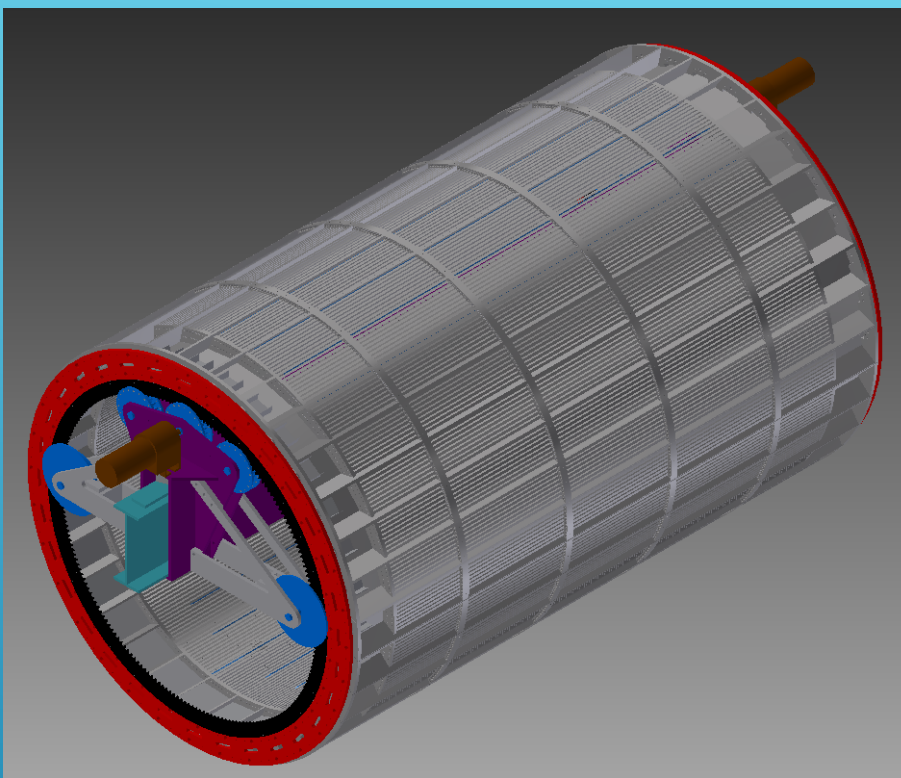
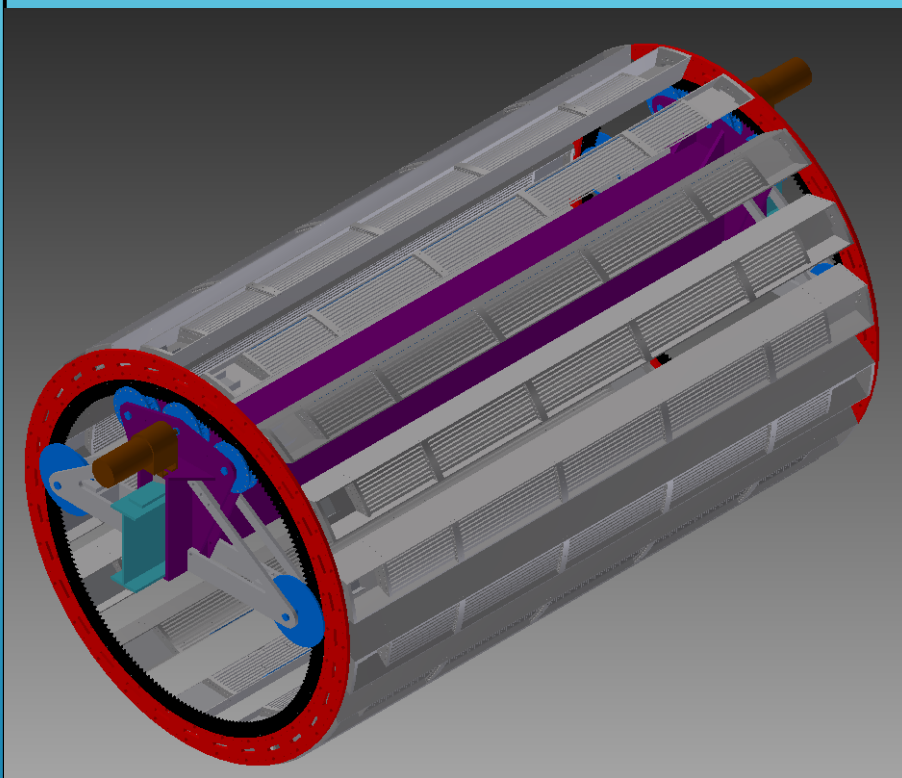
White, Pink, and Blue Sheeting

VTX/FVTX EAST @ 510



INNER HCAL INSTALLATION





One
Model

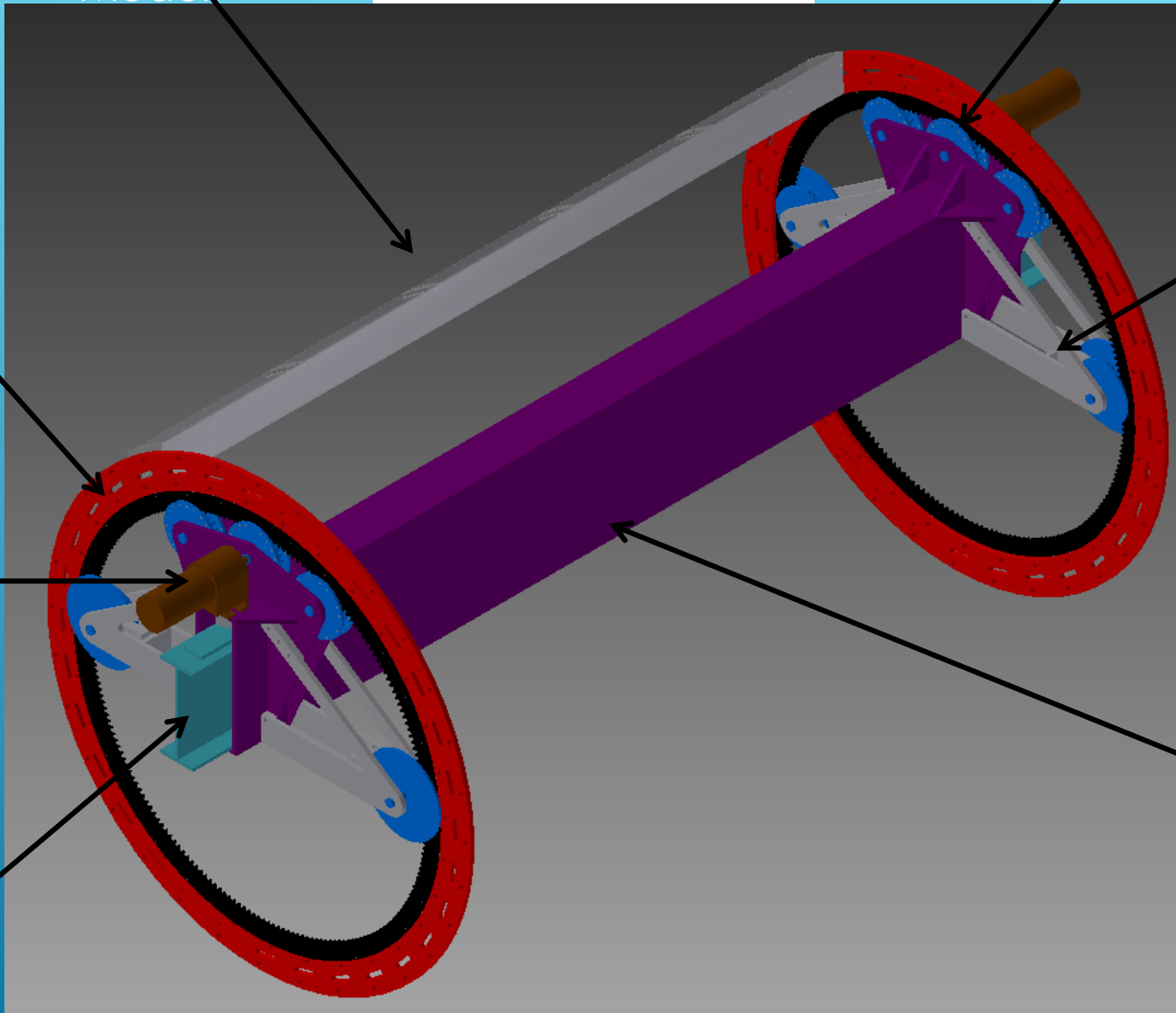
Support
Ring

Speed
Reducer
and
Motor

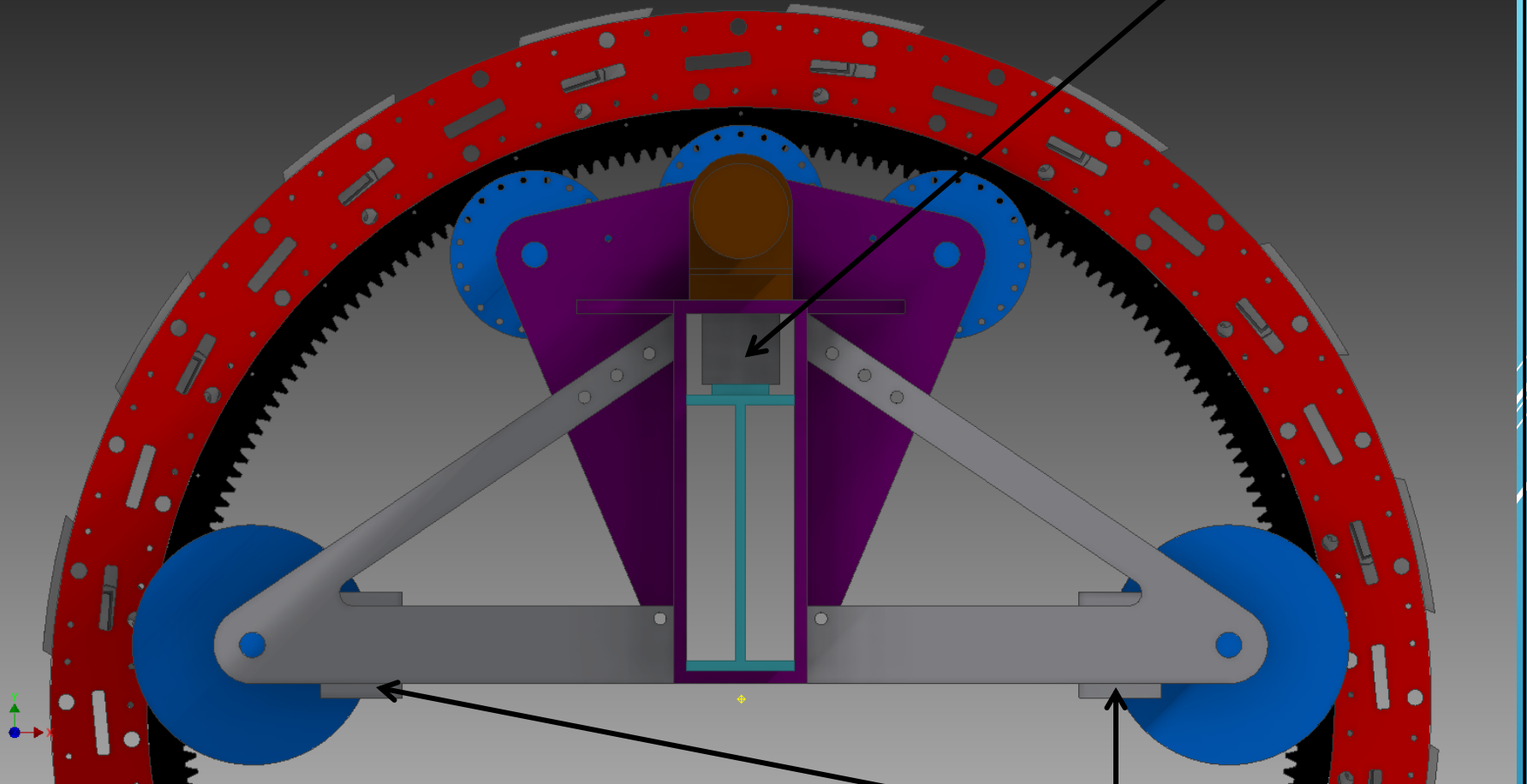
I-Beam

Balance
Flange

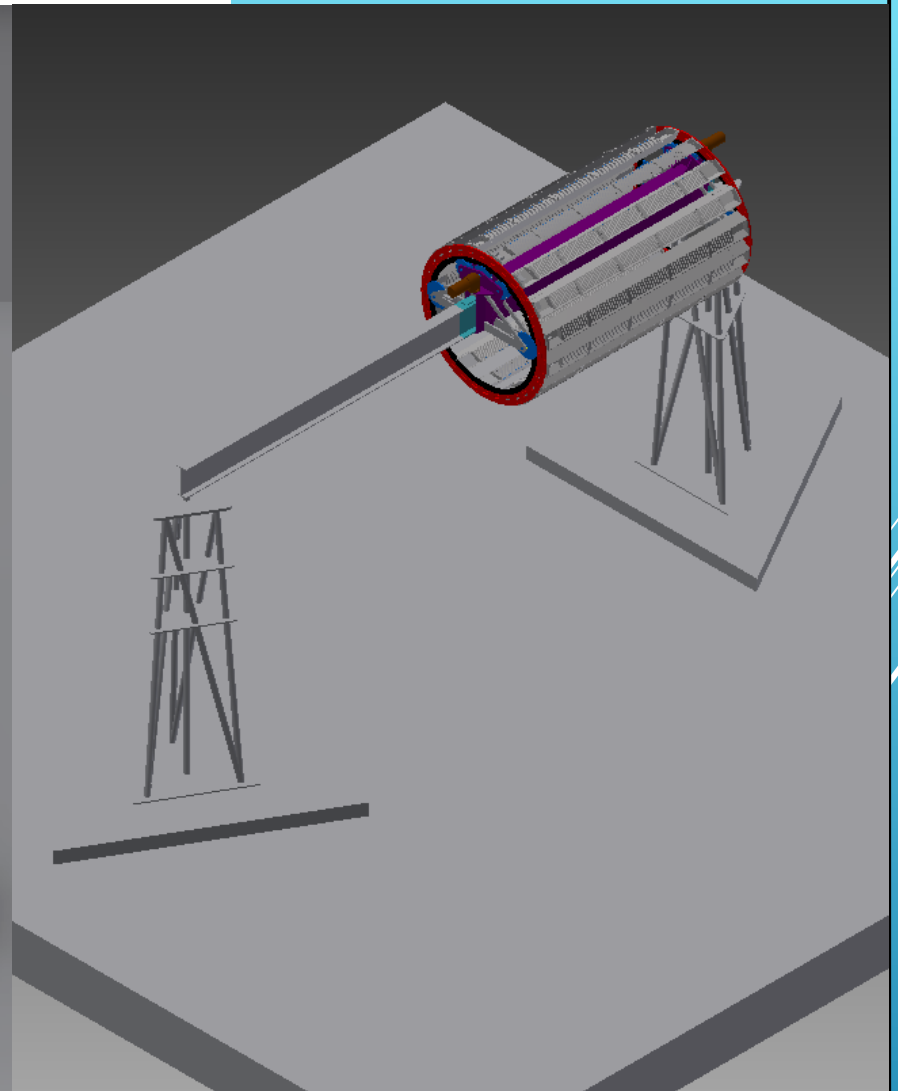
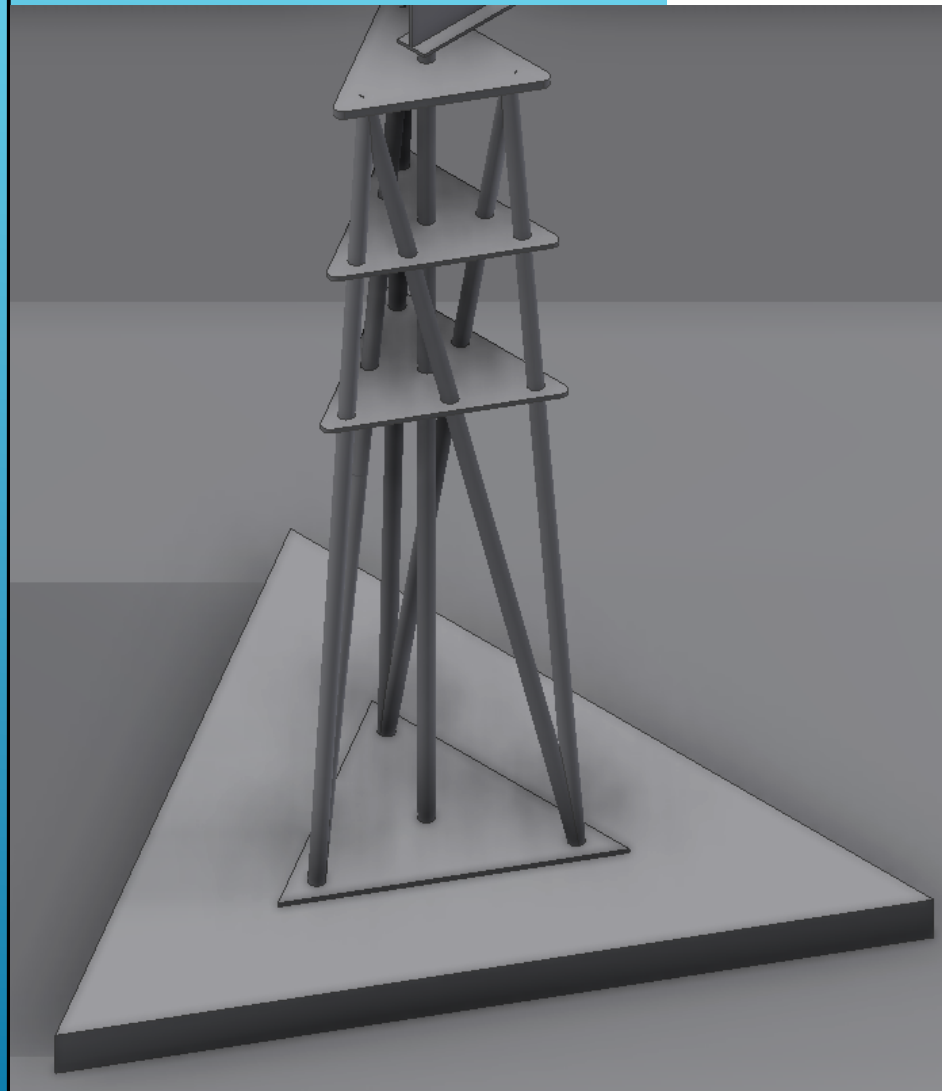
Cart

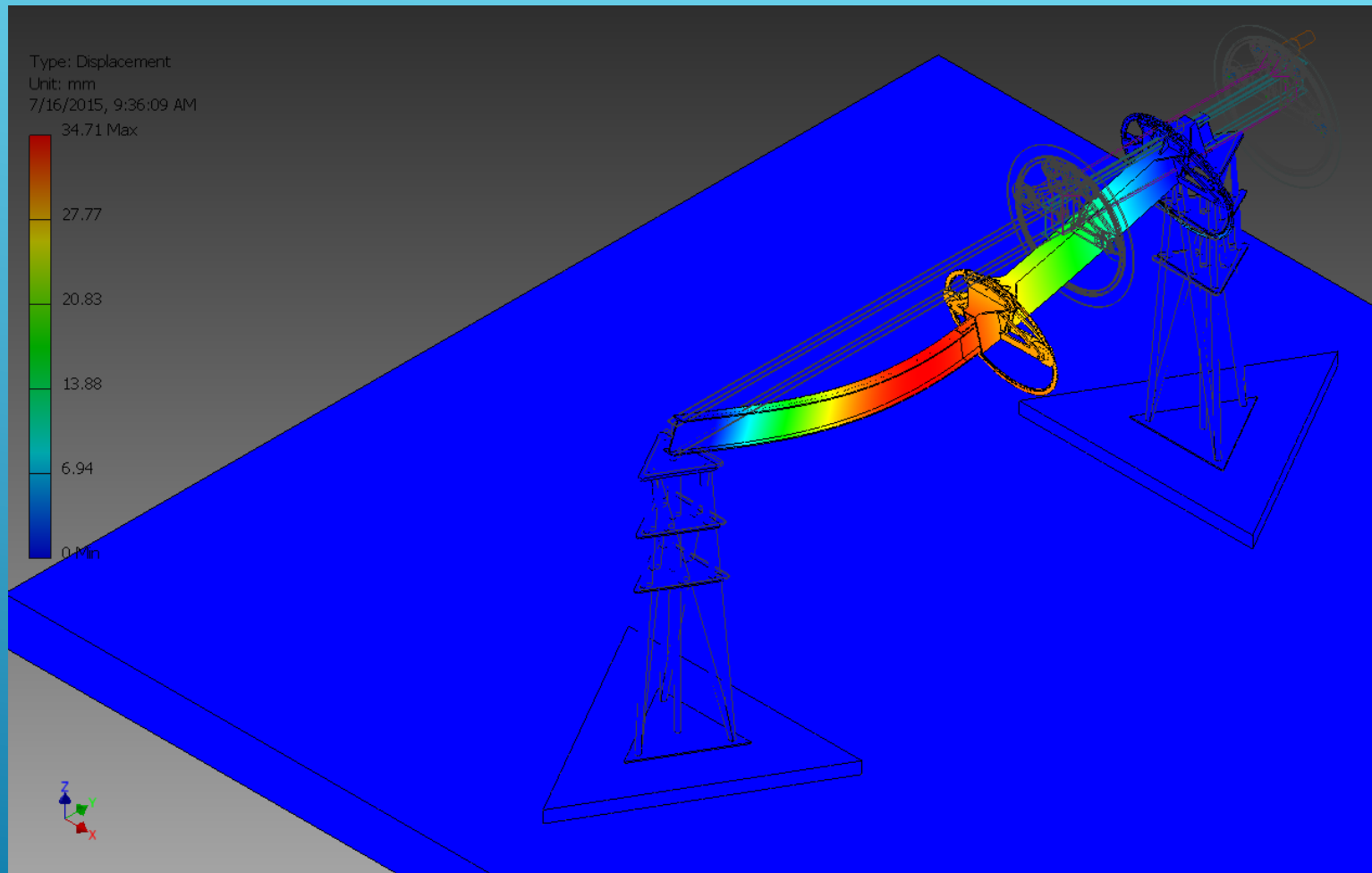


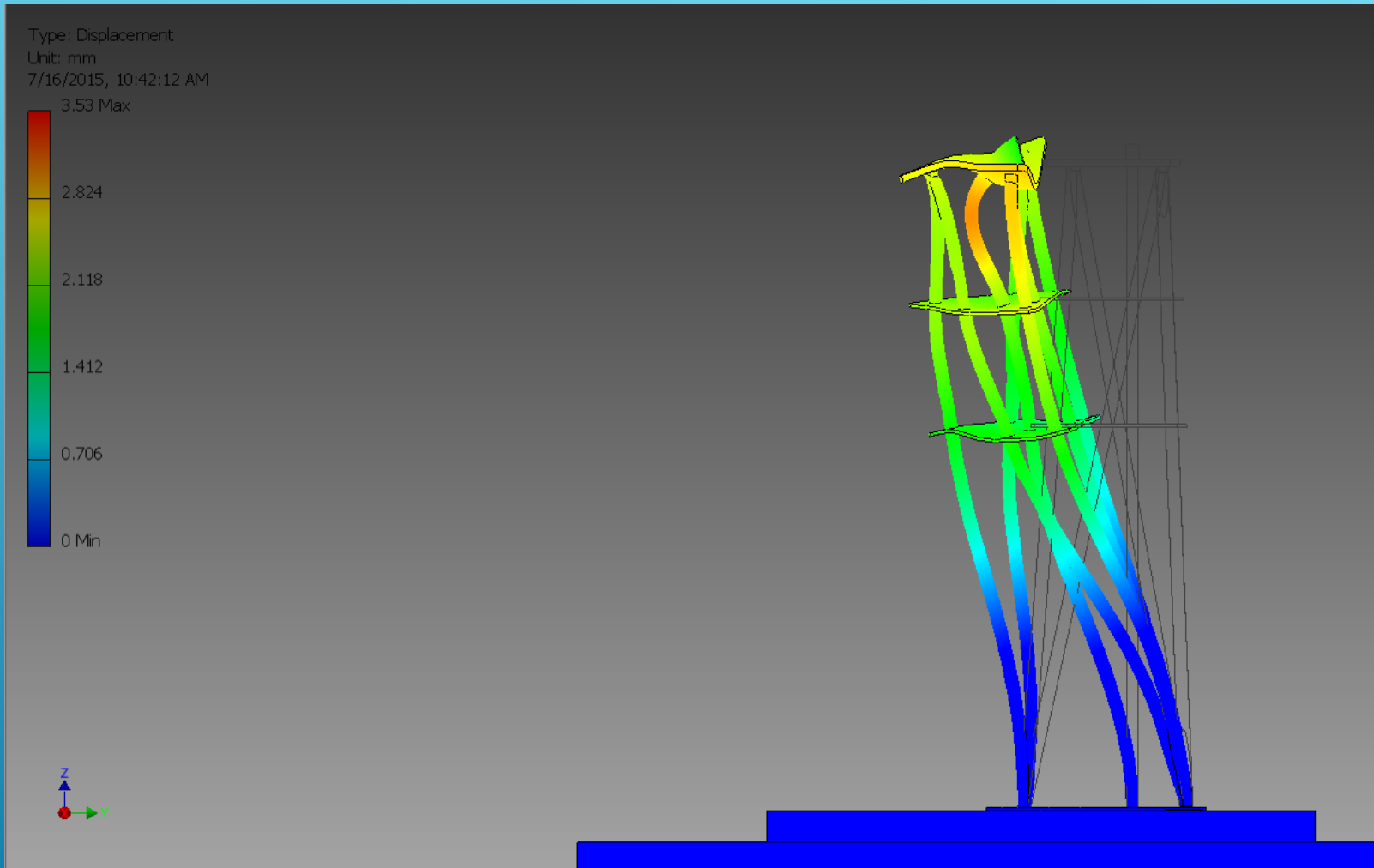
Track / Roller System

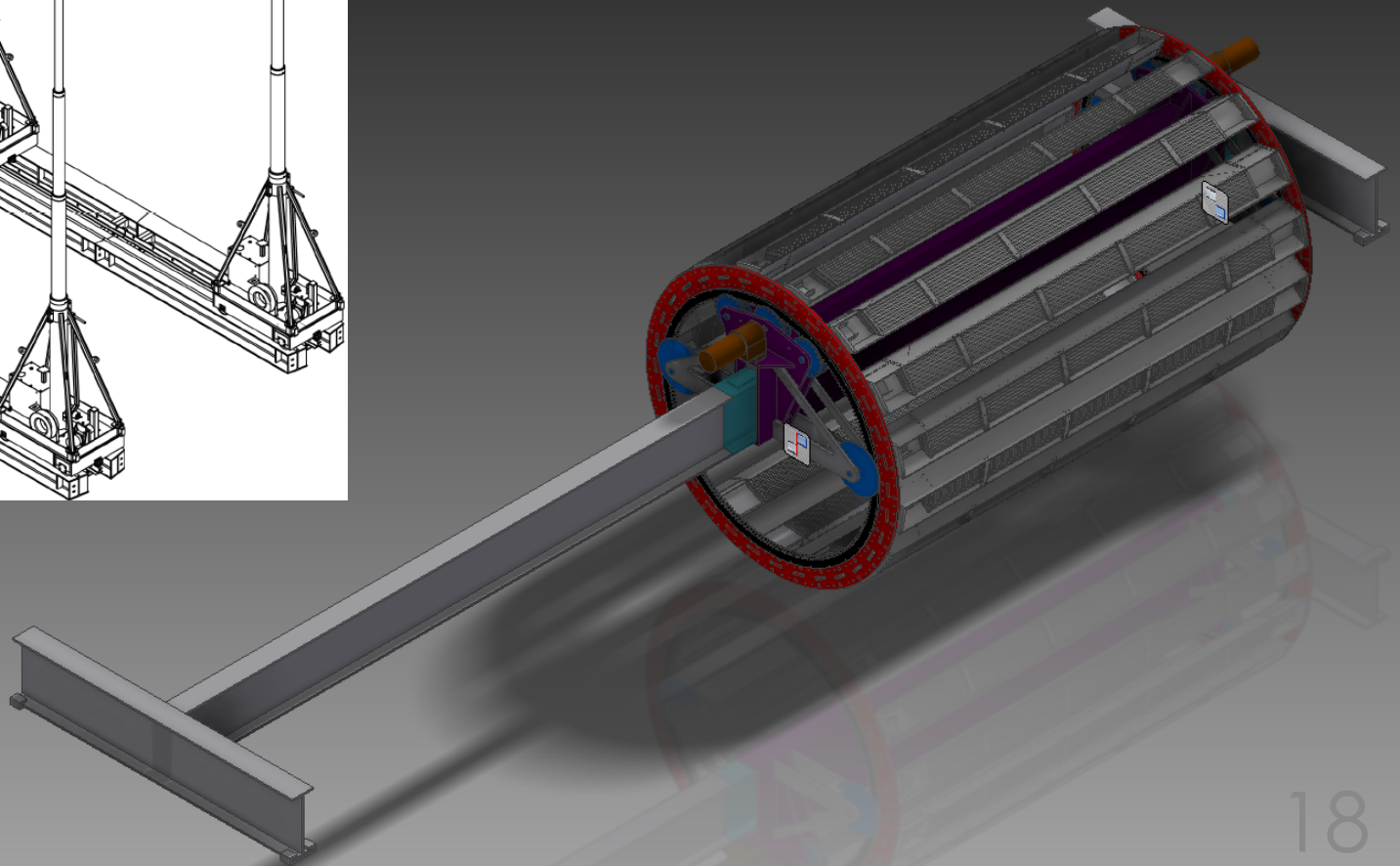
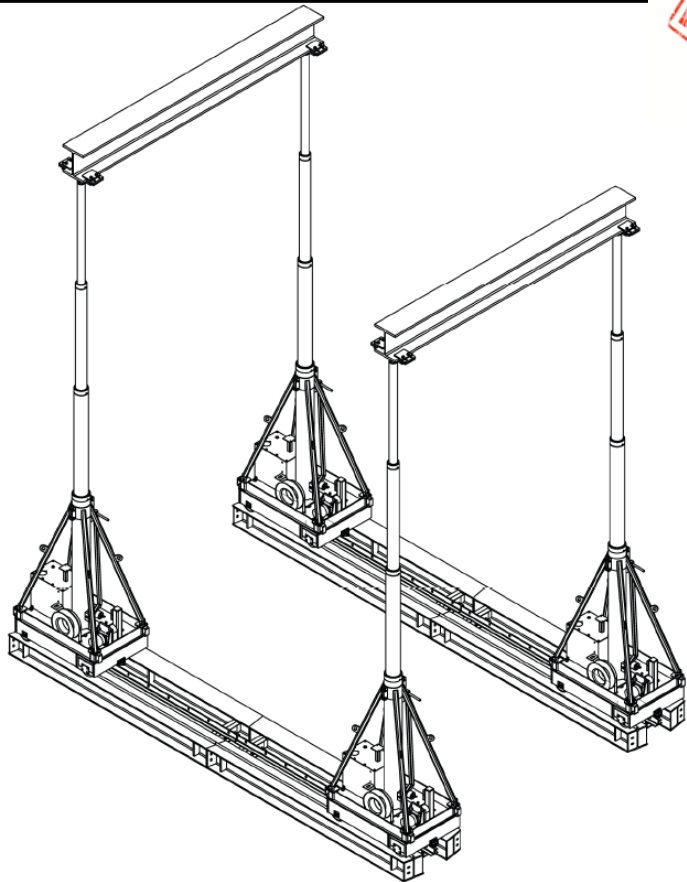


Caliper Disc Brakes











CAPACITY:

4 Point - MODEL 4066SCT

66 (60) tons to 11'10" (3607 mm)
 58 (53) tons to 16'2" (4927 mm)
 50 (45) tons to 20'6" (6248 mm)

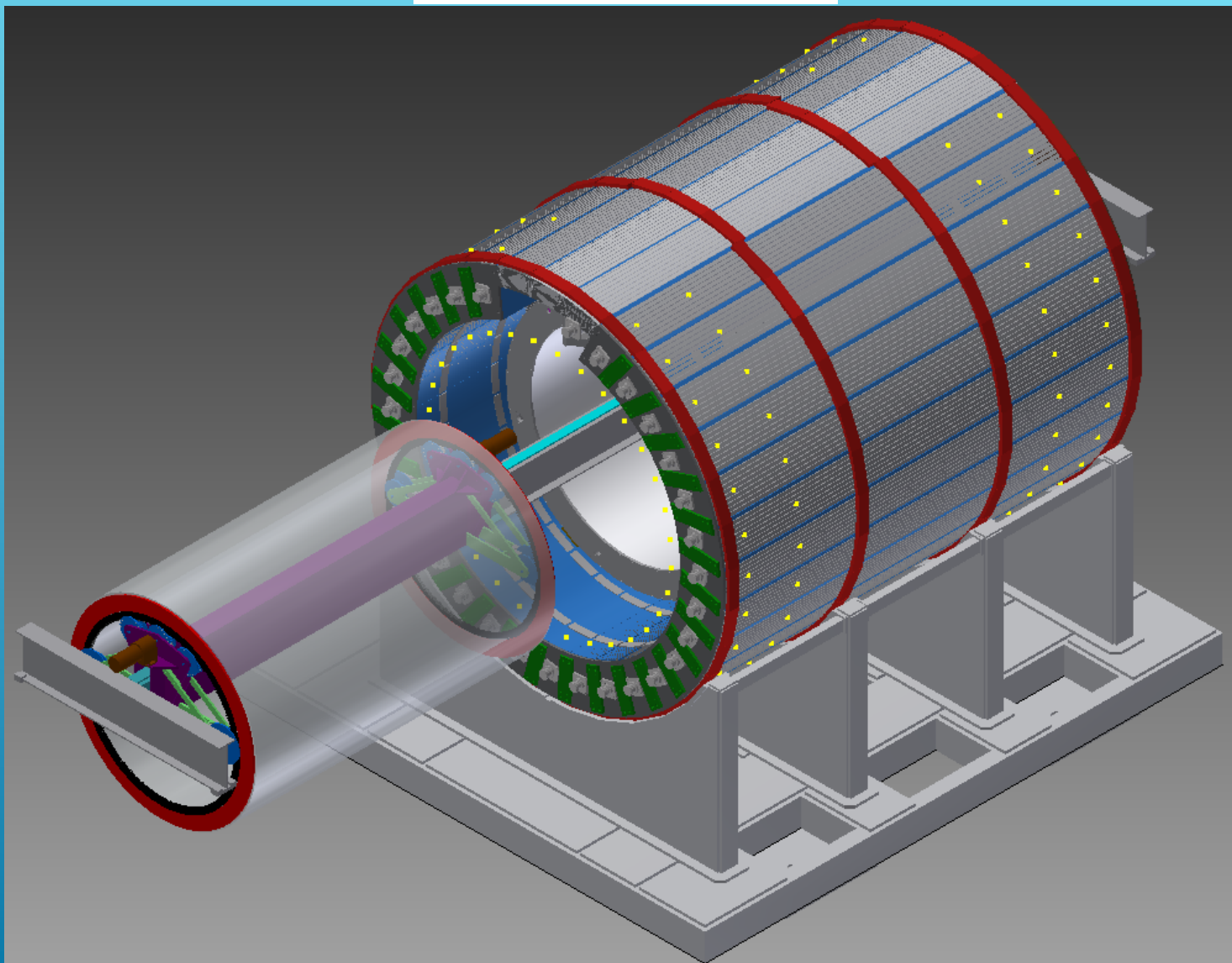
2 Point - MODEL 2033SCT

33 (30) tons to 11'10" (4880 mm)
 29 (26) tons to 16'2" (4927 mm)
 25 (22) tons to 20'6" (6248 mm)

Max. Operating PSI: 2100 (145 bar)

BASE DIMENSIONS:

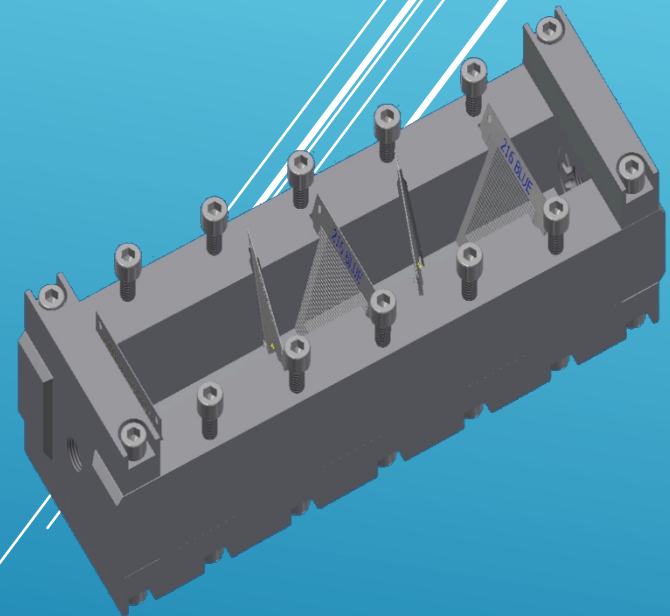
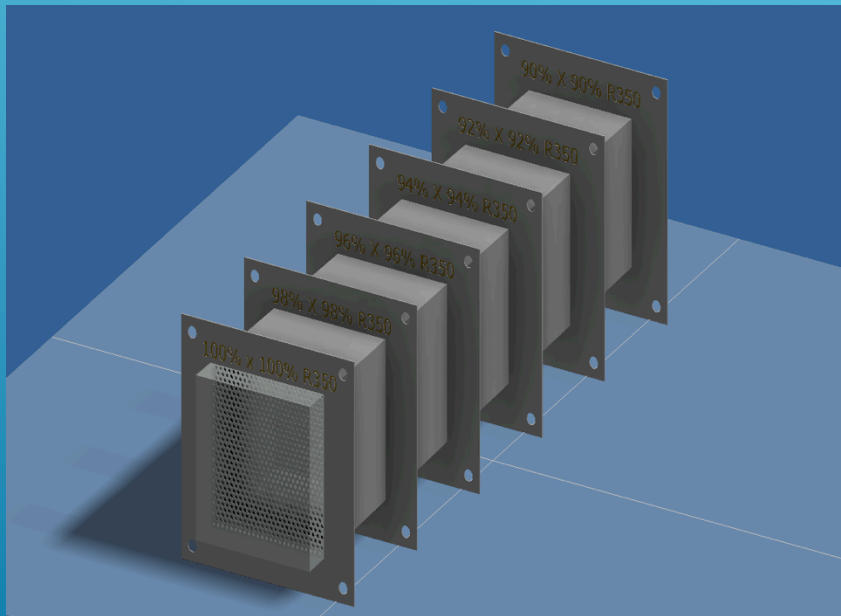
Length: 51" (1295 mm)
 Width: 32" (711 mm)
 Height Retracted: 7'6" (2286 mm)
 Weight: 2300 lbs. (1045 kg)



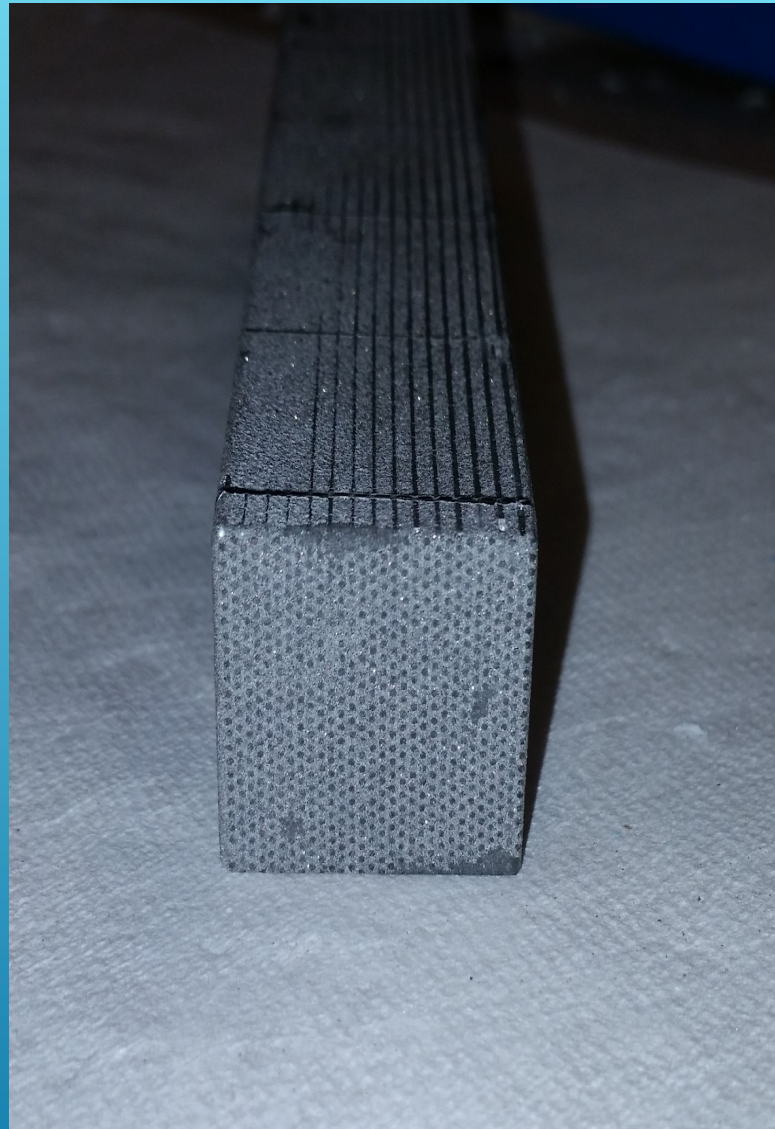
D. Lynch, R. Ruggiero, A. Gordeev, D. Cacace

First EmCal Double Projective Brick Prototype Results

Spencer Locks

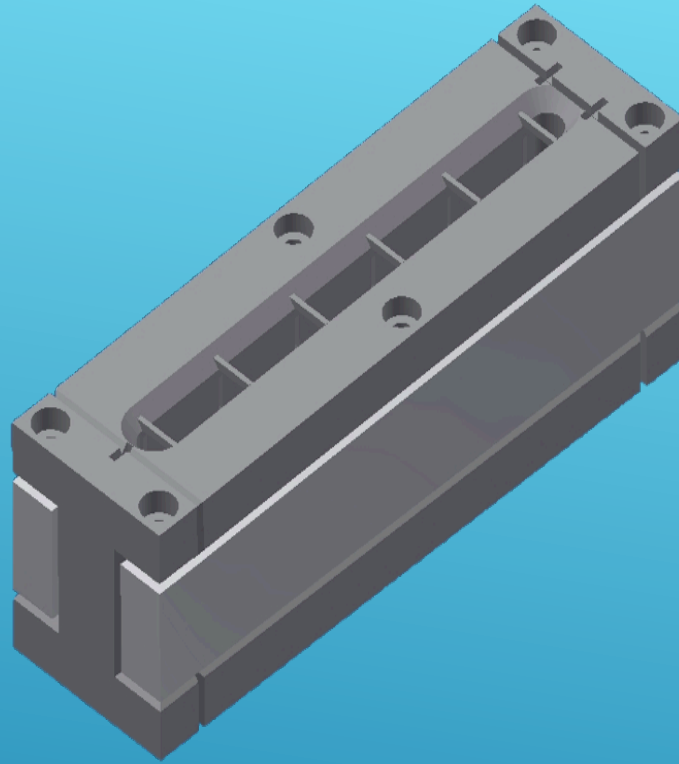


Spencer Locks, Sean Stoll



Photos

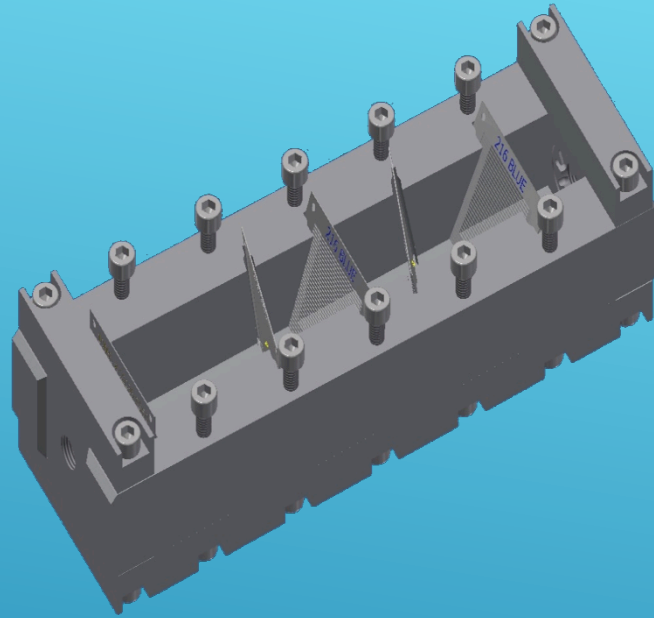
Spencer Locks, Sean Stoll



Latest Mold

We will be filling this mold with epoxy today.

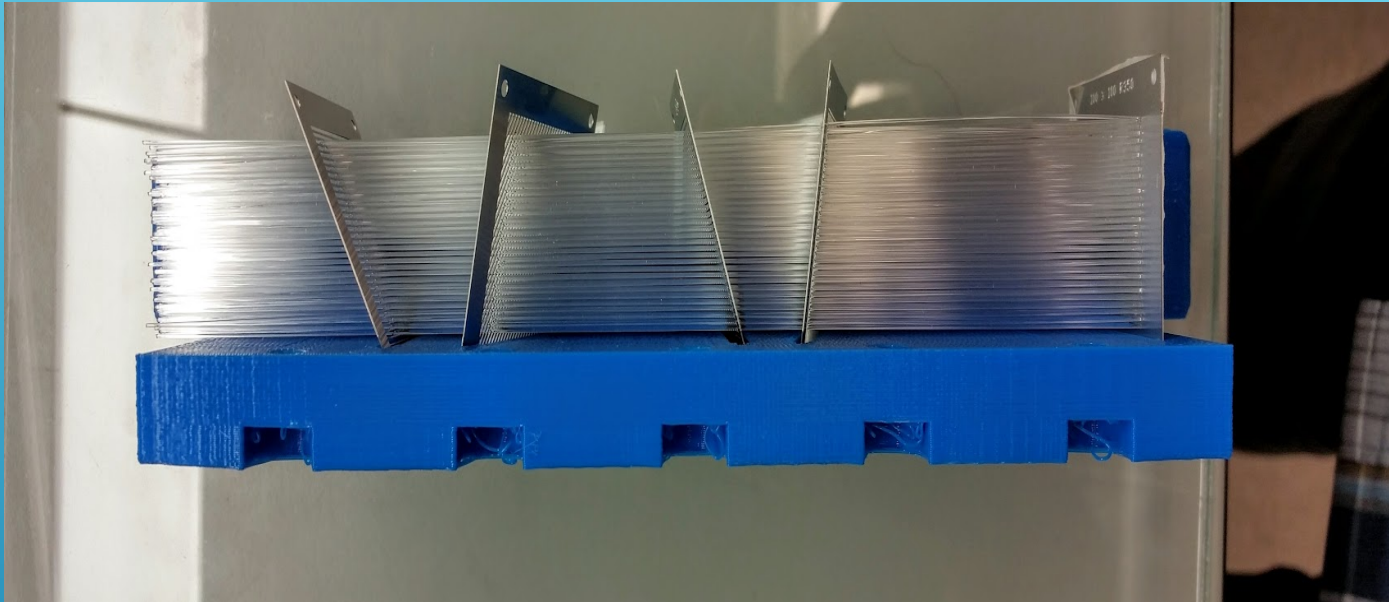
Spencer Locks, Sean Stoll



Method Two: Wireframes

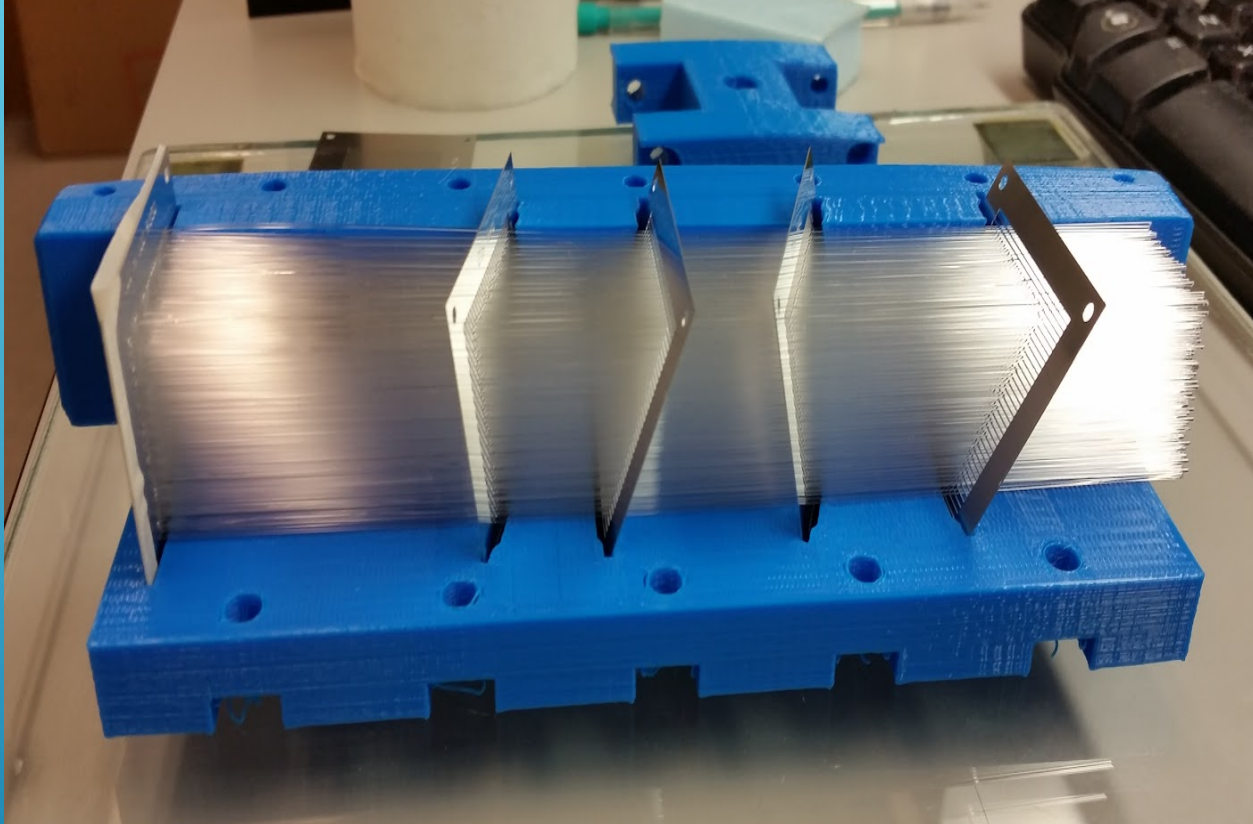
The updated Method Two mold will be mirrored to create a bowtie brick. This will help with the registration of the fibers. We are waiting for results of the newest brick to fix any general issues.

Spencer Locks, Sean Stoll, Jin Huang



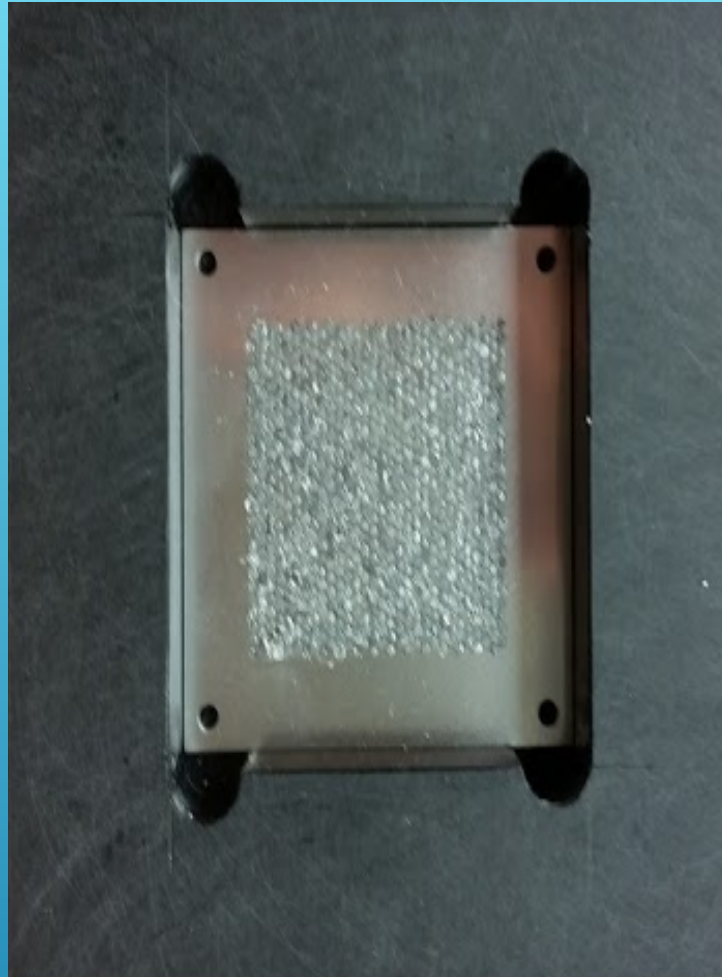
Photos: Second Method

Spencer Locks, Sean Stoll, Jin Huang



Photos: Second Method

Spencer Locks, Sean Stoll, Jin Huang



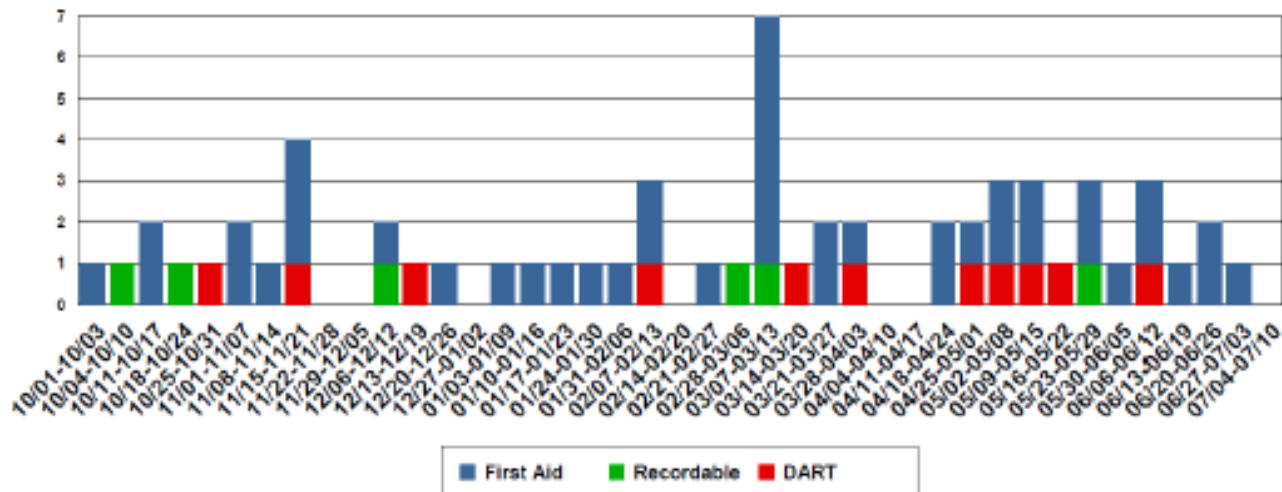
Photos: Second Method

Spencer Locks, Sean Stoll, Jin Huang



Photos:
Second Method
Spencer Locks, Sean Stoll, Jin Huo

Injuries Per Week (FY) As of 7/10/2015



Injury Status:

FY15 YTD: DART – 11, TRC – 17, First Aid – 44

FY14: DART – 17, TRC – 33, First Aid – 38

FY13: DART – 18, TRC – 39, First Aid – 52

FY15 Injury Listing:

<https://intranet.bnl.gov/esh/shsd/seg/OccInj/BNLInjuries.aspx>

Recent Injuries

7/2/15	First Aid	An employee was injured falling from a kneeling scooter. An examination was conducted at the OMC and the employee was sent home for the rest of the day.
--------	-----------	--

Recent Events

7/8/15	Non-Reportable	A power cord was pinched in a joint of an elevated workstation while it was being moved to a lower position. Consequently, the crimped cord shorted out, causing a pop, spark, and puff of smoke. There was no electrical shock or injury. (Event Link)
7/7/15	Non-Reportable	While transporting a desk in Building 459, a glass door was damaged. There were no injuries. (Event Link)
6/30/15	SC-2	A scientist felt a small shock on touching first an external cable connector, then the on/off key of a laser power supply that was energized but not operational. In the immediate investigation, the ground wire of the 3-prong electrical plug that connects the power supply to the 110V wall receptacle was found to be loose. The cord/plug was removed from the 110 VAC outlet, which powered the unit, and the room was secured to preserve the scene. The employee reported to the BNL Occupational Medicine Clinic (OMC) where they found no indication of effects from a shock. An investigation has been initiated. <u>Update:</u> To better understand the event and the risk, on July 6, 2015, a team used remote metering to determine the voltage on the laser power supply case and external connectors when the power supply was plugged into the wall receptacle. The case voltage measured was 55.9V AC with respect to ground when the plug ground wire was disconnected, and 0V with the ground wire connected. These measurements were taken with the power supply switch left in the off position. (Event Link)

From Gail Matson, ALD for ES&H

As you may know, the Lab has a Safety Solutions (S2) program which solicits ideas from employees and the line organizations annually for projects and products that will benefit people, processes, and infrastructure. This year we received over twenty-five excellent suggestions from staff, many of which were approved for funding. Some of the funded projects and their submitters are the following:

- Permanent confined space postings (M. Marco, Safety & Health Services)
- Hazmat software (M. Rosenfeld, Lab Protection)
- Larger and more legible street signs (S. Kuroski, Facilities & Operations)
- Replacement of old glass desiccators (K. Klaus, Material Sciences)
- Loading Dock sand trap (F. Mancini, Facilities & Operations)
- Oil storage material handling improvements (W. McKeon, Magnet Division)
- Power strips for the EBNN areas (L. Bowerman, EBNN Directorate)
- Convex safety mirrors for loading dock (F. D'Agostino, Procurement)
- Knee pads for Waste Management Technicians (E. Gavin, Waste Management)
- Cut prevention equipment (L. Stiegler, Photon; K. Kusche, CAD; J. Anselmini, Chemistry)
- Anti-slip floor decals (L. Bowerman, EBNN Directorate)
- LOTO devices for awkward positions (M. Samms, Facilities & Operations)
- Hand truck for HVAC (M. Samms, Facilities & Operations)

You'll notice that several of these items address some of our leading causes of injuries and areas of concern, such as slips/trips/falls, lacerations, Lock-out/Tag-out (LOTO), and material handling.

Thank you to everyone and their staff who submitted ideas. Please remember that even if you or your staff member's suggestion was not selected for funding, it alerts management to areas of concern and is often addressed in other ways, such as Integrated Facility Management and the Project, Planning, Programming, and Budgeting Process.

WHERE TO FIND PHENIX ENGINEERING INFO



Engineering sPHENIX Issues

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

